

Client Ref.:91019

Our ref: 0548-8143-US/final/Vincent/Steve

ABSTRACT OF THE DISCLOSURE

A test key for validating the doping concentration of buried layers within a deep trench capacitor. The test key is deposited in the scribe line region of a wafer. In the
5 test key of the present invention, the deep trench capacitor is deposited in the scribe line region and has three buried layers of three doping concentrations. An isolation region is deposited in the capacitor, and a first plug, a second and a third plug are coupled to three positions of one
10 buried layer of the three respectively. The present invention determines whether the doping concentration of buried layers within a deep trench capacitor is valid by a first resistance measured between the first plug and the second plug and a second resistance measured between the
15 second plug and the third plug.